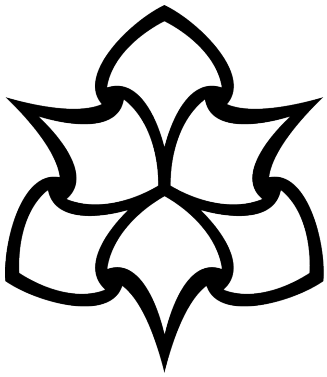

<CT>Teaching for neurodiversity: Training teachers to see beyond labels

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<A>Introduction

This study reports on a national, government-funded teacher professional development project in England under the title 'Teaching for Neurodiversity'. The aim was to provide a better understanding of diversity in learning and a basic 'toolkit' of strategies to develop in-service teachers' confidence and skills in meeting the diverse range of student learning needs found in their classrooms. The one-day training programme was developed by a group of educational charities, led by the British Dyslexia Association (BDA). The project was rolled out to English primary schools, secondary schools and colleges over the academic year 2016–17 and evaluated by a researcher team from Manchester Metropolitan University.

The 'neurodiversity' approach provides an alternative inclusive teaching and learning model to that based upon the traditional special educational needs and disabilities (SEND) 'syndromes' and the practice of 'teaching to the label' for students with specific learning difficulties (SpLD). Instead, it proposes teaching to the differing individual dimensions of strengths and needs of each student in order to approach each learner holistically, including those currently without a SEND 'label'. The following section explains the rationale for this approach.

<A>Why use a 'neurodiversity' approach to pedagogy?

To understand the reasons for using an inclusive teaching and learning approach based upon neurodiversity, it is important to understand what is meant by the term. Certainly, differing conceptions of 'neurodiversity' currently exist**.** The original use of the term was coined to reframe the label 'autistic spectrum disorder'(Singer, 1999). Others use 'neurodiverse' to refer to people with a range of specific learning difficulties (DANDA, 2005; Baker, 2011). However, the model underpinning the training conceives that *everyone* is included within the spectrum of neurodiversity.

This conception of neurodiversity contains within it a critique of the traditional idea that there can be unproblematic, easily-bounded 'categories' of SEND. Instead, a neurodiversity approach is based upon an understanding that so-called 'special needs' categories have within them huge variation (Lewis and Norwich, 2004). Each is seldom present in neat isolation, but rather occurs – usually – in conjunction with other learning differences, sometimes characterised as 'co-morbidity' (Gilger and Kaplan, 2001) or 'co-occurrence' (Jones and Kindersley, 2013). This factor, added to the fact that many dimensions or characteristics of learning, such as working memory or attentional difficulties, are present in a variety of so-called special educational needs, has led academic psychologists such as Snowling and Hulme (2012) to suggest that educationalists should focus upon 'dimensions' of learning, rather than upon 'categories' of SEND, especially when none of these categories have clear cut-off points and when so many learners do not have difficulties that have reached the threshold for 'clinical' diagnoses. Furthermore, Armstrong (2012) has suggested a move away from a deficit-focused discourse of special educational needs to focus upon the individual strengths that different learners have.

Ultimately, the 'neurodiversity' approach is based upon the fundamental idea that all humans are neurodiverse, that learning differences are a normal part of human variation, and that this variation might be considered as a human ecosystem; as Masataka (2017) suggests, neurodiversity can be seen as the human equivalent of biodiversity. Both Armstrong and Masataka suggest that an understanding of learning differences as neurodiversity can represent a paradigm shift in conceptualising learning and thus in classroom teaching approaches.

<A>The Teaching for Neurodiversity training programme

The Teaching for Neurodiversity training programme, therefore, is based upon the importance of recognising and responding to individuals' profiles of learning strengths and needs. It recognises the principle that every teacher is a teacher of SEND and that teachers need to make 'reasonable adjustments' to their teaching in order to meet diverse learning needs (Department for Education, 2015). However, it also seeks to address the lack of confidence experienced by many teaching staff regarding the identification and support of learners with SpLDs, which may lead to a learner's needs being either unidentified because of preconceptions of what constitutes an SpLD or unaddressed pending a specialist assessment, or to the attitude that learners with SpLDs are the sole responsibility of the school's Special Educational Needs Coordinator (SENCO) and specialist teachers.

The training addresses such issues by focusing not on labels but rather on support based on observable behaviours and learner profiling, and, further, on utilising a range of whole-class techniques to establish a 'neurodiversity-friendly classroom'.

Devised as a train-the-trainer model, it is intended to be cascaded by teachers attending the initial training days to all staff in their own school at a 'core skills' level.

The training day is divided into three sections:

Part 1: 'Seeing the whole picture'. This section promotes the importance of holistic learner profiling, taking into account the range of strengths and challenges that might be present in a learner with an SpLD.

Part 2: 'Understanding neurodiversity'. In this section of the training, a combined SpLD/neurodiversity checklist of dimensions of learning (both cognitive and affective) is presented, which has been devised to take into account the overlapping nature of SpLDs. The checklist aims to provide a framework through which to observe and understand learner behaviours, and encourages teachers to look beyond individual labels and preconceptions of what it might mean to have dyslexia, dyspraxia and so on.

Part 3: 'Classroom support strategies'. This section underlines the key message that 'The purpose of identification is to work out what action the school needs to take, not to fit a pupil into a category' (DfE, 2015, p. 97). It offers a 'toolkit' of easy-to-implement 'core' strategies, also encouraging teachers to build on their own best practice in order to develop inclusive learning in their classrooms.

The toolkit offers strategies for:

- fostering self-esteem
- understanding challenging behaviour as a form of communication
- teaching metacognition

- using multisensory techniques
- making text reader-friendly
- breaking down instructions/reducing memory load
- allowing 'thinking time'
- supporting alternative recording strategies
- keeping language simple.

Three versions of the training have been developed, at primary, secondary and post-16 levels, and were delivered in a series of 48 one-day events throughout England. These events were attended by a total of 2,067 delegates, representing 1,466 institutions.

	Number of events	Number of delegates	Number of institutions
Primary schools	19	1175	865
Secondary schools	13	394	293
Post-16 colleges	16	498	308

<TC>Table 1: Participation at the initial Teaching for Neurodiversity events

The training was then cascaded by staff attending the initial events back at their own institutions, vastly increasing the reach of the training. In addition to this, the training has been made available as a series of webinars (BDA, nd), attended by a total of 1,143 participants, including attendees from overseas.

<A>Assessing the impact of the Teaching for Neurodiversity training

The team from Manchester Metropolitan University designed and carried out an evaluation of the impact of the Teaching for Neurodiversity training over the year of the project (Griffiths et al., 2017).

<B>Methodology

To evaluate the impact of the training, the team developed three surveys. Survey 1 was to assess delegates' knowledge, skills and understanding about neurodiversity and SpLDs at the start of the training day, Survey 2 to assess their knowledge, skills and understanding at the end of the day, and Survey 3 to be completed after three months by colleagues who had received the cascaded training.

From the impact data in Survey 3, three primary schools, three secondary schools and two colleges were selected as showing high impact, to be researched in more depth as a series of case studies, through interviews with those who had cascaded the training, plus two other members of the teaching staff.

<B>Summary of the project evaluation findings

Data from Surveys 1 and 2 found statistically significant gains (Wilcoxon signed-rank, $p<0.001$) in delegates' knowledge and understanding of SpLDs and neurodiversity, their understanding of support strategies for the diversity of learners in the classroom, and their knowledge of multisensory

approaches to learning and of metacognitive techniques. General feedback about course content and delivery was overwhelmingly positive (76.1 per cent), though a minority of delegates (15.6 per cent) did report already having the knowledge, skills and practice in their institutions. A small number (16.7 per cent) seemed to have misunderstood the aims of the training and had expected more advanced-level training for themselves, rather than being trained to cascade a core-level training package to colleagues.

Results from Survey 3 showed a consistent majority of respondents (55 to 70 per cent) reporting a positive impact upon their knowledge, skills and understanding of how to identify and support the diversity of learning needs within their classrooms. In the same way, between 60 and 75 per cent reported positive impacts upon whole-school approaches to supporting the needs of the diversity of their learners, those both with and without identified SpLDs. Results showed that 53.4 per cent noted improvement in student engagement in learning already and 44.5 per cent noted improvements in pupil performance. Although these two last figures are more modest, it was noted by many respondents that the recency of the training meant that there had not really been sufficient time for impacts upon student outcomes to be fairly measured.

Data from the case studies' staff interviews revealed that the cascaded training had translated into staff developing more multisensory approaches to learning, including appropriate resources to support these. These approaches and resources were not just being used with students identified with SpLDs but with the whole class. This was not only to avoid 'singling out' certain students, but also because staff believed that these approaches and resources were proving effective for the whole range of learners. The same applied to helping the students to develop metacognitive strategies to support their learning independence. Staff reported increases in their own confidence in their lesson planning and teaching skills. Perhaps most importantly, the adoption of the term 'neurodiversity' allowed teachers to report 'looking beyond the kids' labels' to consider the individual strengths and needs of each child. Many reported improvements in students' engagement, confidence and self-esteem, and some early signs of improved student performance were reported at some schools, though a consensus among staff was that it was too early to measure the full impact upon student outcomes.

<A>Conclusions

If there is one key 'take home' message from the findings of the Teaching for Neurodiversity initiative, it seems to be that encouraging teachers to focus upon individual learner strengths and needs – not just SEND 'labels' – and offering them a toolkit to get started on this can be really empowering.

This initiative seems to have tapped a real area of training need in the teaching workforce and raises questions about the possibility of more of such training in initial teacher education.

Furthermore, given the differing levels of teachers' confidence and skills in this area, there is a case for the development of a range of in-service training packages at different levels to match these.

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